

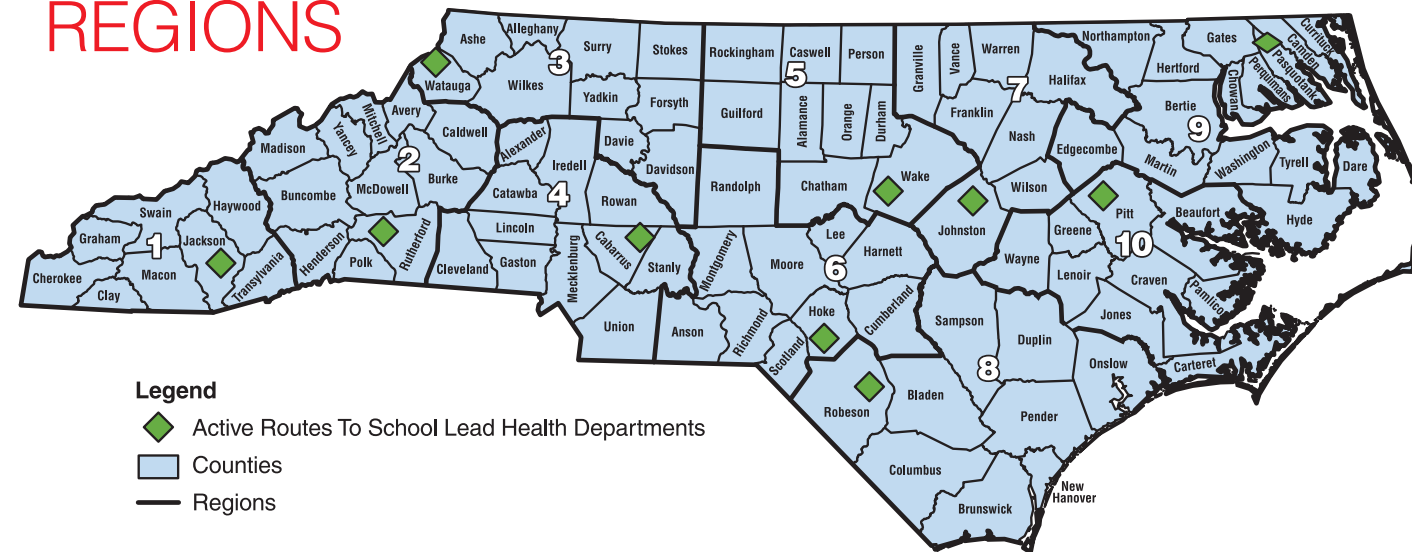
ACTIVE ROUTES TO SCHOOL EVALUATION SUMMARY

Prepared for the Community and Clinical Connections
for Prevention and Health Branch, NC Division of Public Health
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FALL 2015 RESULTS



ACTIVE ROUTES TO SCHOOL REGIONS



The goal of the Active Routes to School Project is to increase the number of elementary and middle school students across North Carolina who safely walk or bike to school. To achieve this goal, 10 Active Routes to School Project Coordinators (Project Coordinators)—housed in local health departments across the state—implement the project.

Highway Safety Research Center (HSRC) is pleased to present this report on results captured from fall 2014, spring 2015 (which together comprise this evaluation's "baseline") and fall 2015. This evaluation provides increased understanding of how the project goal is being met.

In total, information from 190 schools (150 elementary schools [K–5th grade] and 40 middle schools [6th–8th grade]) are included in this report. Findings reported here represent data collected by 73 elementary and middle schools using the Parent Survey and 99 schools using the Student Travel Tally (Travel Tallies) as of fall 2015, as well as Active Travel Readiness ratings of 102 schools submitted by project coordinators between fall 2014 and spring 2016.

The Data Collection Instruments Used in this Evaluation

- A. The **Parent Survey** captures:
1. The usual travel mode of students and
 2. Parents' perceptions about walking and bicycling between home and school.

For this project evaluation, three questions were added to the Parent Survey that are not on the standard Parent Survey offered by the National Center for Safe Routes to School. The additional questions address parents' levels of walking and bicycling activity, as well as students' walking and bicycling activity outside of school (i.e., after school hours during the week and on the weekend).

- B. The **Student Travel Tally** is a show-of-hands accounting of students' travel modes to and from school.
- C. The **Active Travel Readiness Scale** was developed by HSRC so that project coordinators could assess schools according to the schools' levels of interest and engagement with advancing safe walking and bicycling to or at school.



The table below shows the number of schools engaging in different data collection activities:

Data Collection Activity	Number of Schools
Parent Surveys ONLY	21
Travel Tallies ONLY	46
Active Travel Readiness Rated ONLY	54
Both Parent Surveys AND Travel Tallies	22
Active Travel Readiness Rated AND Parent Surveys	10
Active Travel Readiness Rated AND Travel Tallies	10
Active Travel Readiness AND Parent Surveys AND Travel Tallies	27
Total Number of Schools	190



Schools’ “Locales”

The National Center for Education Statistics assigns “locales”—officially called “urban-centric locale codes”—to schools in the organization’s public school database. These codes are based on an address’s proximity to an urbanized area (a densely settled core with densely settled surrounding areas) in accordance with the 2000 Decennial Census.

CITY

Territory inside an urbanized area and principal city.

SUBURB

Territory outside a principal city and inside an urbanized area.

TOWN

Territory inside an urban cluster and outside an urbanized area.

RURAL

Census-defined rural territory outside an urban cluster and outside an urbanized area.



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The 57 NC counties—located in all 10 Active Routes to School regions—represented in this report closely resembled all 100 counties in terms of the county-level unemployment rate as of March 2016¹ and the percent of adults who report to be physically inactive during the past month.² However, adults living in study-represented counties were slightly, though not significantly, more likely to walk or bike to work than the average adult in NC.³

Relative to all elementary and middle schools in the state, schools in this study were over-represented in suburbs and towns, and under-represented in rural areas. Suburbs were especially over-represented among the 50 schools that collected Travel Tally or Parent Survey data in fall 2015, and baseline-included schools were particularly over-represented in towns.⁴ (*See sidebar for more information on the “locales” in which schools are located.*) Further, high income schools were over-represented and medium income schools were under-represented in this study.

Differences in the findings between state-distributed and study-distributed locales may be attributable to the fact that project coordinators have been encouraged to focus data collection in areas with greater potential to support walking and biking to and from school.



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Travel Tally Results

A total of 99 schools collected Travel Tallies—66 collected tallies one time, and 33 collected them two times. Based on all of the schools that collected Travel Tallies, students were twice as likely to walk to school in fall 2015 as they were at baseline.

- Between baseline and fall 2015, middle school students attending city schools were most likely to walk or bicycle to and from school.
- Middle school students attending suburban or town-based schools were more likely than similarly situated younger students to be driven or ride a bus to and from school.
- Students attending lower income schools were less likely to be driven to or from school than were students attending higher income schools.

Based on the group of 33 schools that collected Travel Tallies on two occasions, walking and bicycling to and from school did not shift much, yet approached a statistically significant increase from school in fall 2015. In terms of how students traveled to and from school, there were no significant differences between schools that collected Travel Tallies once (n = 66 schools) and those that collected them twice (n = 33 schools).



1. United States Bureau of Labor Statistics. (2016, April). *Labor force data by county, not seasonally adjusted, January 2014–February 2015* [Data file]. Retrieved from <http://www.bls.gov/lau/tables.htm>.

2. Centers for Disease Control and Prevention. (CDC). (2015). *Diabetes data and statistics*. [Data file]. Retrieved from http://www.cdc.gov/diabetes/atlas/countydata/County_ListofIndicators.html.

3. United States Census Bureau. *American factfinder. 2013 American Community Survey, 5-year estimates*. [Data file]. Retrieved from <http://factfinder.census.gov/>.

4. More on school locales here: National Center for Education Statistics. (n.d.). *Locale Codes*. Retrieved from <http://nces.ed.gov/ccd/commonfiles/localedescription.asp>.



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Parent Survey Results

Results from the 73 schools that collected Parent Surveys and allowed for comparison between baseline and fall 2015, showed no statistically significant shift in the travel mode students used to get to and from school.

- The top three factors associated with walking or bicycling to and from school included:
 1. Distance from school;
 2. Parents' perceptions of how much fun walking and biking to and from school was for their child; and
 3. Children asking their parents' permission to walk or bike to or from school.
- Children asking permission to walk or bike to or from school predicted use of travel modes other than the school bus to get to and from school. Those who rode a bus to and from school were most commonly middle school students who lived more than two miles from school.
- The more fun parents perceived walking and biking to be for their children, the less likely parents were to drive their children to or from school in a car. Those who rode in a car between home and school were most commonly younger students who lived more than two miles from school.

Parents' and students' walking or biking activity

- Students walked or biked significantly more outside of school (i.e., after school hours during the week and on the weekend) in the week preceding the fall 2015 survey compared to the week preceding the baseline survey.
- Between baseline and fall 2015, the amount of time parents spent walking or bicycling to and from school with their child in the week preceding the survey decreased significantly.
- The differences in parents' levels of walking and bicycling activity in the preceding week—either to or from school or anytime—did not differ significantly between baseline and fall 2015.

Parent Survey results from 20 schools where it was theoretically feasible to walk or bike to and from school

HSRC classified schools in which more than 12.5% of students (i.e., the median value) lived within ½ mile of school and whose parents completed Parent Surveys on more than one occasion as “theoretically feasible to walk or bike to school.” Parent-reported distance from school was used as a proxy of the feasibility of walking or biking to and from school because distance from school is consistently the strongest predictor of walking and biking to and from school in North Carolina and nationally.⁵

Three differences between all 73 Parent Survey-collecting schools and the 20 schools where it was theoretically feasible to walk or bike to and from school included:

1. **The importance of parent-perceived health.** Along with parent-perceived fun, if parents perceived walking and biking to school to be healthy for their children, the children were more likely to walk or bike to and from schools where it was theoretically feasible to do so.
2. **The project's potential impact on children's walking and biking activity outside of school.** Among children who attended schools where it was theoretically feasible to walk or bike, more of them walked or biked outside of school (i.e., after school hours during the week and on the weekend) in fall 2015 than did at baseline.
3. **The project's potential impact on parents' walking and bicycling activity, including trips to and from school, as well as outside of school (i.e., after school hours during the week and on the weekend).** When children walked and biked to and from school, their parents walked and biked significantly more than parents whose children did not walk or bike to and from school, regardless of whether the parent accompanied their child on the trip to or from school.



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5. McDonald, N. C., Brown, A. L., Marchetti, L. M., & Pedros, M. S. (2011). U.S. School Travel, 2009: An Assessment of Trends. *American Journal of Preventive Medicine*, 41(2), 146-151. doi:10.1016/j.amepre.2011.04.006.



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Active Travel Readiness Ratings

All 10 Active Routes to School Project Coordinators rated schools' Active Travel Readiness⁶ on a quarterly basis

- Ordinary least squares (OLS) regression models controlling for school's locale and school-level income revealed that between September 2014 and April 2016, project coordinators' ratings of 98 schools' Active Travel Readiness increased significantly, dipped in January 2016, and rebounded in April 2016.
- Among the 10 schools where project coordinators rated all seven quarters, Active Travel Readiness ratings increased like the larger group's (i.e., the 98 schools rated by their Active Travel Readiness) ratings, but experienced a larger dip in January 2016.
- The 37 schools that collected Travel Tallies and were rated according to the Active Travel Readiness enhanced their Active Travel Readiness at a faster rate than schools that had not collected Travel Tallies.
- High income schools stabilized their Active Travel Readiness ratings; medium income schools increased their Active Travel Readiness rating; and low income schools enhanced their Active Travel Readiness ratings at a faster rate than medium income schools.

Results highlight several avenues through which Active Routes to School Project Coordinators and their partners can support and encourage greater levels of walking and bicycling to and from school.

1. Supporting walking- and bicycling-focused events that highlight the fun of walking and bicycling between home and school
2. Encouraging parents to get involved in Safe Routes to School programming
3. Encouraging students to discuss transportation options with their families
4. Engaging traditionally disadvantaged communities
5. Creating a welcoming community climate for safe walking and bicycling to and from school

6. The development of study's Active Travel Readiness Scale was informed by the following work: Evenson, K.R., Motl, R.W., Birnbaum, A.S., & Ward, D.S. (2007). Measurement of Perceived School Climate for Active Travel in Children. *American Journal of Health Behavior*, 31, 86-97.

For more information
about the Active Routes
to School Project visit:

www.communityclinicalconnections.com/ActiveRoutes